



CORNELL UNIVERSITY
FUNDED PhD POSITIONS (2):
Harmful algal blooms effects on fisheries and people in Lake Victoria
Application deadline: December 1, 2020

The [Fiorella](#) and [McIntyre](#) research groups at Cornell University are seeking two graduate students to join a new NSF-funded study of how harmful algal blooms affect fisheries from human, fish, and ecosystem perspectives. Our interdisciplinary study seeks to merge human health outcomes, the behavior of fishers and fish consumers, food web structure, and algal bloom dynamics in space and time.

Harmful algal blooms are arising in ever more places, and their spatial extent, duration, and intensity are on the rise within many ecosystems. Understanding their dynamics and consequences represents an important need in global change research, including the development of theory to improve management of social-ecological systems. Students will engage closely with a range of Kenyan and American research partners, gaining exposure to diverse approaches and methodologies. The structure of this interdisciplinary project creates two parallel opportunities:

Ecological System Specialization: One student will specialize in the ecological system, including: sampling the diverse fishes harvested in Lake Victoria; analyzing food web relationships using stable isotopes and fatty acids; conducting spatial analysis of harmful algal bloom extent and correlates; and contributing to integration across project elements.

Human System Specialization: One student will specialize on the human system, including: developing and implementing a household survey; analyzing effects of harmful algal blooms on livelihood, food and nutrition security; quantifying household health risks and risk mitigation; and contributing to integration across project elements.

Ideal candidates will have experience and interest in environmental science/studies, ecology, public health, economics, and/or sociology, as well as interest(s) in fisheries, global environmental change, nutrition, food security, and toxicology. Candidates should look forward to learning cutting-edge methodologies in the ecological and/or human systems domains, and be comfortable with international travel. Given the interdisciplinary nature of the project, excellent communication (oral and written) skills are a high priority. Students will gain experience in collaborative research that spans conceptual and methodological boundaries. We are looking for team members who will thrive working closely with Cornell PIs, Kenyan project partners, and other researchers.

The desired start-date is Fall 2021, with applicants applying to our PhD program by the 1 December 2020 deadline. East African candidates are especially encouraged to apply. A competitive stipend and benefits package will be provided, involving support from a mixture of teaching and research assistantships. Residence in Ithaca, NY is expected, but regular and prolonged travel to Kisumu, Kenya will be necessary for field work (while fully adhering to COVID-related advisories and requirements). PhD students will be welcomed into Cornell's vibrant community of scholars in the graduate fields of [Department of Natural Resources and Environment](#), [Ecology and Evolutionary Biology](#), or [Biomedical and Biological Sciences](#).



We welcome all inquiries and questions about these opportunities prior to formally applying. Interested candidates should submit a brief letter of interest, a resume/CV, and a writing sample as soon as possible. These materials should be sent to both Katie (kf326@cornell.edu) and Pete (pbm3@cornell.edu), using the subject line "HABs PhD Positions". Screening of candidates will proceed immediately, and will continue until the position is filled. We will encourage strong candidates to proceed with formally applying to one or more of the graduate fields mentioned above, adhering to the 1 December 2020 application deadline.